

tically all nucleus. The corpuscles on the other hand have lost their nuclei wholly. Between these extremes we have various stages of chromatin reduction in the development of the specialized Metazoan tissues. The maturation divisions in ova and sperm, the bodily extrusion of chromatin observed on the part of blood-cells, etc., he regards as illustrations of the process.

THE RESERVE OF FOOD IN TREES

Preston and Phillips (Forest Quart., 1911) agree with the common view that starch is the principal form in which reserve food is stored in trees. They doubt that cellulose is able to act at all as a reserve material. The maximum contained reserve for deciduous trees occurs about the time the leaves fall, and during the next few weeks there is a decided reduction in its amount. The sugar content in trees remains pretty constant except for an increase in spring during the unfolding of the buds.

ALTERNATION OF GENERATION IN FLORIDEÆ

Lewis (Bot. Gaz., Mch., 1912), by artificial plantings of tetraspores and carpospores of *Polysiphonia* and some other genera of red algae gets experimental results supporting the general conclusion that tetraspores produce only the sexual plants and carpospores only the tetrasporic plants. In no instance was an exception found to the rule, although a considerable number of plantings developed to maturity. Tetraspores from a given individual produced male and female plants in approximately equal numbers. It is also concluded that no greater growth vigor comes to the carpospores over the tetraspores because of the double number of chromosomes contained by them.

RELATION OF THE PROTOPLASM OF ADJACENT PROTOPLASTS

Thoday (Ann. Bot., 1911) undertakes to throw light on the relation that exists between protoplasts of contiguous cells, by an examination of the relation between the parasite, *Cuscuta*, and its host. She finds that there is no direct protoplasmic connection between the cells of *Cuscuta* and the host, but that the phloem cells of the parasite haustoria apply themselves to the sieve plates of the phloem of